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Keywords: Charcot-Marie-Tooth disease; Motor function measure; Limitation of activity; Neuromuscular disease; Outcome measures
Objective.– To study validity, applicability and sensitivity to change of the motor function measure (total score and sub-scores D1, D2 and D3) in patients with Charcot-Marie-Tooth disease.
Methods.– Two hundred and thirty-three patients aged 4–86 years were included. The scores and sub-scores were analyzed by age and by disease subtypes. Sensitivity to change was estimated in patients with at least 6 months of follow-up and 2 evaluations.
Results.– Motor function measure scores decrease with age, especially sub-scores D1 and D3. There were no significant differences between the scores in the different types of Charcot-Marie-Tooth disease. The scores were significantly higher for ambulant patients than for non ambulant. A significant sensitivity to change was demonstrated only in Charcot-Marie-Tooth disease type 2.
Discussion.– Our results suggest that the motor function measure, especially D1 and D3 sub-scores, is a reliable and valid outcome measure usable for patients' follow-up but also in clinical trials to assess efficacy of treatment. Longer follow-up could demonstrate sensitivity to change in other Charcot-Marie-Tooth disease subtypes.

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P040-e

Isolated axillary nerve neuropathy. Case report

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Keywords: Axillary; Neuropathy; Rehabilitation
Background.– The axillary nerve dysfunction is a form of peripheral neuropathy. It occurs when the nerve is damaged, which supplies the deltoid muscle and skin around. Symptoms include pain, numbness in the outer portion of the shoulder, and weakness specially in the abduction movement. Aetiology can be traumatic, systemic or idiopathic. Pharmacologic treatment of pain and rehabilitation are helpful in the management of the process.
Results.– A 44-year-old man presented with acute pain and difficult to abduct his left shoulder, no traumatic or systemic cause was recorded. Amyotrophy of the shoulder girdle appeared in later physical examination. Ecography showed minimal signs of supraespinatus tendinitis. Electromyography (EMG) carried out 2 months later revealed isolated axillary nerve involvement. Rehabilitation treatment was implemented, which included neurostimulation and therapeutic exercise to improve muscular strength of shoulder abductors. Six months later, recovery was nearly complete, remaining minimal atrophy of the deltoids muscle.
Discussion.– Isolated axillary nerve involvement is a rare presentation of neuralgic amyotrophy.
Clinical presentation and EMG make the diagnosis. Analgesic and rehabilitation are the recommended treatment.

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P041-e

Frequency of carpal tunnel syndrome in patients with cervical radiculopathy

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Keywords: Carpal tunnel syndrome; Cervical radiculopathy; EMNG
Background.– Carpal tunnel syndrome (CTS) and cervical radiculopathy (CR) are the most common cause of symptoms of sensorimotor dysfunction of the upper extremities. These conditions are often difficult to distinguish, and often occur simultaneously.
Objective.– To determine the frequency of CTS in patients with electrodiagnostic findings (EMG) of CR, as well as the correlation between the frequency of CTS and the level of CR.
Methods.– We analyzed medical records of 69 patients with EMG confirmed CR. EMG examination consisted of median and ulnar motor and sensory conduction velocity studies, and electromyographic examination of muscles representing C6, C7 and C8 myotome.
Results.– In 68.1% of patients isolated CR was diagnosed, and 31.9% of patients were diagnosed with the simultaneous presence and CTS and CR. Frequency of the cervical root involvement was: C7 (59.42%), C6 (30.4), and C8 (10.2%). Frequency of CTS in radiculopathies C6, C7 and C8 was 15.5%, 16.4% and 21.7%, with no statistically significant differences.
Discussion.– CR is often associated with CTS, with no correlation between the frequency of CTS and the level of radiculopathy. Different approach to the treatment of these conditions requires precise diagnosis, which can be achieved by referring patients to electrodiagnostic examination.

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P042-e

Treatment of co-contractions and muscle hypertonia of children with obstetric brachial plexus palsy (0BPP): Botulinum toxin. Twenty-five cases report

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Keywords: Obstetric brachial plexus palsy; Treatment; Botulinum toxin
Background.– Depending on the plexus injury, two types of after-effects can occur. Co-contractions, resulting from a new organization of nerve fibers and muscle hypertonia. We will show the results of our treatment using botulinum toxin for these two types of after-effects. Use of botulinum toxin has been known since 2000, but currently study methods do not allow us to formally exploit results.
Methods.– We injected botulinum toxin in 25 patients showing co-contraction between the brachial biceps and the triceps and hypertonic of the latissimus dorsi muscle.
Discussion.– Only a joint work between surgeons, neurologists and rehabilitation doctors will enable to work out a more effective treatment and limit the functional after-effects of these patients.
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